Curriculum Vitae - Summary Page - Neil M. Bressler, M.D.

Title: James P. Gills (inaugural) Professor of Ophthalmology – Johns Hopkins

Family: --

Peer-Reviewed Publications: 195

Other Publications: 30 book chapters; co-author of American Academy of Ophthalmology textbook; *Editor-in-Chief* of *The Wilmer Retina Update: 1995-2000*; *Advanced Studies in Ophthalmology* (Editor-in-Chief): Present.

Major Research: Design and implement clinical trials evaluating retinal diseases. Currently, <u>Study Chairman</u> of 6 multicenter randomized clinical trials: 3 sponsored by the National Eye Institute of the National Institutes of Health; 3 sponsored by industry. Also, <u>Network Chair Elect</u> of the Diabetic Retinopathy Clinical Research Network (DRCR.net) for 2005 and <u>Network Chair</u> for 2006 involving 3 randomized clinical trials and 3 observation studies sponsored by the National Eye Institute of the National Institutes of Health.

Educational Roles: Director: Retinal Fellowship Program and Residency Retina Rotation

Participant: Medical student required clerkships and electives

Mentor: School of Public Health PhD candidates

Director: Annual Continuing Medical Education Courses at Hopkins

Clinical Practice: National and international referral for retinal diseases at Wilmer

Editorial Boards: Archives of Ophthalmology (Editor of Controversies Section); Retina; Advanced Studies in Ophthalmology (Founding Editor and Editor-in-Chief)

Major National Advisories:

<u>Chair</u>, Data and Safety Monitoring Committee, National Eye Institute Intramural Program of National Institutes of Health

Ophthalmic Devices Panel of the Medical Devices Advisory Committee for the Center for Devices and Radiologic Health, Food and Drug Administration

U.S. Pharmacopeia Expert Committee

Carotene in Age-Related Eye Disease Study (CAREDS) Scientific Advisory Board for National Eye Institute

Recent Honors:

The Macula Society Rosenthal Award and Lecture
The Society of Heed Fellows Award
Inaugural Recipient of the Neil R. Miller Medical Student Teaching Award
The Alvaro Rodriguez Gonzalez Lecture and Gold Medal
Saudi Ophthalmology Society Medal

National Society of Southern Dames Award
The Macula Society J. Donald M. Gass Medal
American Society of Retinal Specialists Award
Helen Keller Foundation Award and Lecture
The Macula Society Research and Education Award
American Academy of Ophthalmology Senior Achievement Award

BIOGRAPHICAL INFORMATION

Born: ---

Wife: ---

Children: --

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EDUCATION

Undergraduate: University of Michigan, Ann Arbor, MI - Bachelor of Science - ---

Medical School: The Johns Hopkins University School of Medicine, Baltimore, MD - ---

Internship/Internal Medicine Fellowship: Johns Hopkins Hospital - Department of Medicine - ---

Ophthalmology Residency: Harvard Medical School and Massachusetts Eye and Ear Infirmary, Boston, MA - ---

Retinal Fellowship: Wilmer Eye Institute, The Johns Hopkins University School of Medicine, Baltimore, MD - ---

ACADEMIC APPOINTMENTS

July 1, 1987 - June 30, 1988: Harvard Medical School, Department of Ophthalmology, Instructor of Ophthalmology

July 1, 1988 - October 1991: Johns Hopkins University School of Medicine, Department of Ophthalmology, Assistant Professor of Ophthalmology

October 1991 - June 1997: Johns Hopkins University School of Medicine, Department of Ophthalmology, Associate Professor of Ophthalmology

July 1997 - Present: Johns Hopkins University School of Medicine, Department of Ophthalmology, Professor of Ophthalmology

April 2000 - Present: Johns Hopkins University School of Medicine, Department of Ophthalmology, The James P. Gills Professor of Ophthalmology (inaugural recipient)

PRIMARY HOSPITAL APPOINTMENTS

July 1, 1987 - June 30, 1988: Massachusetts Eye and Ear Infirmary, Assistant in Ophthalmology

July 1, 1988 - October, 1991: Johns Hopkins Hospital, Assistant Professor of Ophthalmology

October 1991 - June 1997: Johns Hopkins Hospital, Department of Ophthalmology, Associate Professor of Ophthalmology

June 1997 - Present: Johns Hopkins Hospital, Department of Ophthalmology, Professor of Ophthalmology

BOARD CERTIFICATIONS

Ophthalmology - ---

HONORS

- ---: Class Honors University of Michigan
- ---: Angell Scholar University of Michigan
- ---: Bachelor of Science with High Distinction and Honors in Zoology
- ---: Phi Beta Kappa
- 1982: Paul Ehrlich Award in Clinical Investigation Johns Hopkins Medical School
- 1986: Heed Fellowship
- 1987: Heed/Knapp Fellowship
- 1993: American Academy of Ophthalmology Honor Award
- 1995: Research to Prevent Blindness Olga Keith Weiss Scholars Award
- 1997: The Macula Society Rosenthal Award and Lecture
- 1999: The Society of Heed Fellows Award
- 2000: Inaugural Recipient of the Neil R. Miller Medical Student Teaching Award
- 2000: Inaugural Recipient of the James P. Gills Professorship of Ophthalmology
- 2000: National Society of Southern Dames Award
- 2001: The Alvaro Rodriguez Gonzalez Lecture and Gold Medal
- 2001: Saudi Ophthalmology Society Medal

- 2003: The Macula Society J. Donald M. Gass Medal
 2003: Neil R. Miller Medical Student Teaching Award
 2003: American Society of Retinal Specialists Award
 2004: Helen Keller Foundation Award and Lecture
- 2004: The Macula Society Research and Education Award
- 2004: The American Academy of Ophthalmology's Senior Achievement Award

PEER-REVIEWED PUBLICATIONS

- 1. Bressler NM, Broekman MJ, Marcus AJ. Concurrent studies of oxygen consumption and aggregation in stimulated human platelets. *Blood* 1979;53:167-178.
- 2. Bressler SB, Bressler NM, Fine SL et al. Natural course of choroidal neovascular membranes within the foveal avascular zone in senile macular degeneration. *Am J Ophthalmol* 1982;93:157-163.
- 3. Fine SL, Bressler NM, Bressler SB, Murphy RP: Macular degeneration update 1983. *Trans Pac Coast Oto-Ophthalmol Soc* 1982;63:35-40.
- 4. Bressler SB, Bressler NM, Fine SL et al. Subfoveal neovascular membranes in senile macular degeneration: Relationship between membrane size and visual prognosis. *Retina* 1983;3:7-11.
- 5. Bressler NM, Gragoudas ES. Neovascularization of the optic disk associated with atypical retinitis pigmentosa. *Am J Ophthalmol* 1985;100:431-433.
- 6. Bressler NM, Gragoudas ES. Retinitis pigmentosa and retinal neovascularization. *Ophthalmology* 1987;94:895.
- 7. Bressler NM, Bressler SB, Gragoudas EG. Clinical characteristics of choroidal neovascular membranes. *Arch Ophthalmol* 1987;105:209-213.
- 8. Bressler NM, Bressler SB, Fine SL. Age-related macular degeneration. *Surv Ophthalmol* 1988;32:375-413.
- 9. Bressler SB, Bressler NM, Seddon JS, et al. Interobserver and intraobserver reliability in the clinical classification of drusen. *Retina* 1988;8:102-108.
- 10. Bressler NM, Bressler SB, Seddon JS et al. Drusen characteristics in patients with exudative versus non-exudative age-related macular degeneration. *Retina* 1988;8:109-114.
- 11. Bressler NM, Frost L, Bressler SB, Fine SL. Natural course of poorly defined choroidal neovascularization in macular degeneration. *Arch Ophthalmol* 1988;106:1537-1542.
- 12. Bressler NM, Bressler SB, West SK, Fine SL, Taylor HR. The grading and prevalence of macular degeneration in Chesapeake Bay watermen. *Arch Ophthalmol* 1989;107:847-852.
- 13. Sunness JS, Massof RW, Bressler NM, Bressler SB. Diminished foveal sensitivity may predict the development of advanced age-related macular degeneration. *Ophthalmology* 1989;96:375-381.

- 14. West S, Bressler NM, Bressler SB et al. Exposure to sunlight and other risk factors associated with age-related macular degeneration. *Arch Ophthalmol* 1989;107:875-879.
- 15. Sunness JS, Massof RW, Bressler NM, Bressler SB. S cone pathway sensitivity in eyes with high risk and low risk drusen characteristics. *Applied Optics* 1989;28:1158-1164.
- 16. Chamberlin JA, Bressler NM, Bressler SB, et al. The use of fundus photographs and fluorescein angiograms in the identification and treatment of choroidal neovascularization in the Macular Photocoagulation Study. *Ophthalmology* 1989;96:1526-1534.
- 17. Macular Photocoagulation Study Group (prepared by Maguire MG, Folk JC, Singerman LJ, Schachat AP, Blackhurst DW, Chamberlin JA, Bressler NM, Fine SL, Hawkins BS, Elman MJ). Persistent and recurrent neovascularization after krypton laser photocoagulation for neovascular lesions of ocular histoplasmosis. *Arch Ophthalmol* 1989;107:344-352.
- 18. Maguire MG, Folk JC, Singerman LJ, Schachat AP, Blackhurst DW, Chamberlin JA, Bressler NM, Fine SL, Hawkins BS, Elman MJ, Macular Photocoagulation Study Group. Response to Letter: Partial ablation of neovascular membranes involving the fovea. *Arch Ophthalmol* 1989;107:955-956.
- 19. Macular Photocoagulation Study Group. Krypton laser photocoagulation for neovascular lesions of age-related macular degeneration: results of a randomized clinical trial. *Arch Ophthalmol* 1990;108:816-824.
- 20. Macular Photocoagulation Study Group. Krypton laser photocoagulation for idiopathic neovascular lesions: results of a randomized clinical trial. *Arch Ophthalmol* 1990;108:832-837.
- 21. Macular Photocoagulation Study Group (prepared by Maguire MG, Blackhurst DW, Alexander J, Bressler NM, Hawkins BS, Fine SL). Persistent and recurrent neovascularization after krypton laser photocoagulation for neovascular lesions of agerelated macular degeneration. *Arch Ophthalmol* 1990;108:825-831.
- 22. Bressler SB, Maguire MG, Bressler NM, Fine SL, Macular Photocoagulation Study Group: Relationship of drusen and abnormalities of the retinal pigment epithelium to the prognosis of neovascular macular degeneration. *Arch Ophthalmol* 1990;108:1442-1447.
- 23. Bressler NM, Finkelstein D, Sunness J, et al. Retinal pigment epithelial tears through the fovea with preservation of good visual acuity. *Arch Ophthalmol* 1990;108:1694-1697.
- 24. Taylor HR, Muñoz MS, West S, Bressler NB, Rosenthal FS, Bressler SB. Visible light and risk of age-related macular degeneration. *Tr Am Ophth Soc* 1990;88:163-178.

- 25. Bressler NM, Bressler SB, Alexander J, et al. Loculated fluid: A previously undescribed angiographic finding in macular degeneration. *Arch Ophthalmol* 1991;109:211-215.
- 26. Repka MX, Bressler NM, D'Anna S. Primate model of macular cysts. *Ophthalmology* 1991;98:535-540.
- 27. Kwiterovich KA, Fine SL, Maguire MG, Bressler NM, Bressler SB, Murphy RP. Frequency of adverse systemic reactions after fluorescein angiography: Results of a prospective study. *Ophthalmology* 1991;98:1139-1142.
- 28. Macular Photocoagulation Study Group. Argon laser photocoagulation for neovascular maculopathy after five years: Results from randomized clinical trials. *Arch Ophthalmol* 109:1109-1114;1991.
- 29. Macular Photocoagulation Study Group. Laser photocoagulation of subfoveal neovascular lesions in age-related macular degeneration. *Arch Ophthalmol* 1991;109:1219-1231.
- 30. Macular Photocoagulation Study Group. Laser photocoagulation of subfoveal recurrent neovascular lesions in age-related macular degeneration. *Arch Ophthalmol* 1991;109:1232-1241.
- 31. Macular Photocoagulation Study Group (prepared by: Bressler NM, Alexander J, Bressler SB, et al). Subfoveal neovascular lesions in age-related macular degeneration: Guidelines for evaluation and treatment in the Macular Photocoagulation Study. *Arch Ophthalmol* 1991;109:1242-1257.
- 32. Macular Photocoagulation Study Group (prepared by Fine SL, Hawkins BS, Maguire MG, Bressler NM, et al). Krypton laser photocoagulation for neovascular lesions of agerelated macular degeneration. *Arch Ophthalmol* 1991;109:614-615.
- 33. Folk JC, Blackhurst DW, Alexander J, Elman MJ, Phillips DA, Macular Photocoagulation Study Group. Pretreatment fundus characteristics as predictors of recurrent choroidal neovascularization. *Arch Ophthalmol* 1991;109:1193-1194.
- 34. Taylor HR, West S, Munoz B. Rosenthal FS, Bressler SB, Bressler NM. The long-term effects of visible light on the eye. *Arch Ophthalmol* 1992;110:99-106.
- 35. Bressler SB, Silva JC, Bressler NM, Alexander JA, Green WR. Clinicopathologic correlation of occult choroidal neovascularization in age-related macular degeneration. *Arch Ophthalmol* 1992;110:827-832.
- 36. Lim JI, Bressler NM. Atypical parafoveal telangiectasis with subsequent anterior and posterior segment neovascularization. *Retina* 1992;12:351-354.

- 37. Lim JI, Bressler NM, Marsh MJ, Bressler SB. Laser treatment of choroidal neovascularization in patients with angioid streaks. *Am J Ophthalmol* 1993;116:414-423.
- 38. Fine SL, Wood WJ, Isernhagen RD, Singerman LF, Bressler NM, Folk JC, Kimura AE, Fish GE, Maguire MG, Alexander J. Laser treatment for subfoveal neovascular membranes in ocular histoplasmosis syndrome: Results of a pilot randomized clinical trial. *Arch Ophthalmol* 1993;111:19-20.
- 39. Bressler NM, Alexander J, Hawkins BS, Maguire MG, Fine SL, for the Macular Photocoagulation Study Group. Response to letter: Subfoveal neovascular lesions in agerelated macular degeneration. *Arch Ophthalmol* 1993;111:901.
- 40. Macular Photocoagulation Study Group (prepared by Burgess DB, Hawkins BS, Jefferys JL, Bressler NM, et al). Five-year follow-up of fellow eyes of patients with agerelated macular degeneration and unilateral extrafoveal choroidal neovascularization. *Arch Ophthalmol* 1993;111:1189-1199.
- 41. Macular Photocoagulation Study Group. Laser photocoagulation of subfoveal neovascular lesions of age-related macular degeneration: Updated findings from two clinical trials. *Arch Ophthalmol* 1993;111:1200-1209.
- 42. West S, Vitale S, Hallfrisch J, Munoz B, Muller D, Bressler SB, Bressler NM. Are antioxidants or supplements protective for age-related macular degeneration? *Arch Ophthalmol* 1994;112:222-227.
- 43. Macular Photocoagulation Study Group. Laser photocoagulation of juxtafoveal choroidal neovascularization: Five-year results from randomized clinical trials. *Arch Ophthalmol* 1994;111:500-509.
- 44. MacCumber MW, Dastgheib K, Bressler NM, Chan C, Harris M, Fine S, Green WR. Clinicopathologic correlation of the multiple recurrent serosanguineous retinal pigment epithelial detachments syndrome. *Retina* 1994;14:143-152.
- 45. Schein OD, West S, Munoz B, Vitale S, Maguire MG, Taylor HR, Bressler NM. Cortical lenticular opacification: distribution and location in a longitudinal study. *Invest Ophthalmol Vis Sci* 1994;35:363-366.
- 46. Edwards MG, Schachat AP, Bressler SB, Bressler NM. Outcome of cataract surgery performed to permit diagnosis, determine eligibility for laser therapy, or perform laser therapy of retinal disorders. *Am J Ophthalmol* 1994;118:440-444.
- 47. Macular Photocoagulation Study Group (prepared by Maguire MG, Klein ML, Olk RJ, Phillips DA, Alexander J, Javornik NB, Hiner C, Marsh MJ, Bressler NM et al). Persistent and recurrent choroidal neovascularization after laser photocoagulation for subfoveal choroidal neovascularization of age-related macular degeneration. *Arch*

- 48. Pieramici DJ, Bressler NM, Bressler SB, Schachat AP. Choroidal neovascularization in black patients. *Arch Ophthalmol* 1994;112:1043-1046.
- 49. Bressler SB, Jefferys JL, Bressler NM, Alexander J, et al, for the Macular Photocoagulation Study Group. Evaluation of green versus red laser for photocoagulation of subfoveal choroidal neovascularization in the Macular Photocoagulation Study. *Arch Ophthalmol* 1994;112:1176-1184.
- 50. Maguire MG, Fine SL, Folk JC, Bressler NM et al for the Macular Photocoagulation Study Group. Visual outcome after laser photocoagulation for subfoveal choroidal neovascularization secondary to age-related macular degeneration: The influence of initial lesion size and initial visual acuity. *Arch Ophthalmol* 1994;112:480-488.
- 51. West SK, Bressler SB, Bressler NM, Vitale S. Are antioxidants or supplements protective for age-related macular degeneration? In reply to letter: *Arch Ophthalmol* 1994;112:730.
- 52. Bressler NM, Silva JC, Bressler SB, Fine SL, Green WR. Clinicopathologic correlation of drusen and retinal pigment epithelial abnormalities in age-related macular degeneration. *Retina* 1994;14:130-142.
- 53. Dyer DS, Bressler SB, Bressler NM. The role of laser wavelength in the treatment of vitreoretinal diseases. *Curr Opin Ophthalmol* 1994;5:35-43.
- 54. Sykes SO, Bressler NM, Maguire MG, Schachat AP, Bressler SB. Detecting recurrent choroidal neovascularization: comparison of clinical examination with and without fluorescein angiography. *Arch Ophthalmol* 1994;111:1561-1566.
- 55. Macular Photocoagulation Study Group (prepared by Marsh MJ, Fine SL, Alexander J, Schachat AP, Maguire MG, Bressler NM, et al). Laser photocoagulation for neovascular lesions nasal to the fovea associated with ocular histoplasmosis or idiopathic causes. *Arch Ophthalmol* 1995;113:56-61.
- 56. Maguire MG, Fine SL, Folk JC, Bressler NM, et al. Treatment of subfoveal choroidal neovascularization: In reply to letter. *Arch Ophthalmol* 1995;113:138.
- 57. Macular Photocoagulation Study Group (prepared by Maguire MG, Alexander, J, Bressler NM, Schachat AP). The influence of treatment coverage on the visual acuity of eyes treated with krypton laser for juxtafoveal choroidal neovascularization. *Arch Ophthalmol* 1995;113:190-194.
- 58. Bird AC, Bressler NM, Bressler SB, Chisholm IH, Coscas G, et al. An international classification and grading system for age-related maculopathy and age-related macular degeneration. *Surv Ophthalmol* 1995;39:5:367-374.

- 59. Sunness JS, Bressler NM, Maguire MG. Scanning laser ophthalmoscopic analysis of the pattern of visual loss in age-related geographic atrophy of the macula. *Am J Ophthalmol* 1995;119:143-151.
- 60. West S, Munoz B, Schein O, Vitale S, Maguire M, Taylor H, Bressler NM. Cigarette smoking and risk for progression of nuclear opacities. *Arch Ophthalmol* 1995;113:1377-1380.
- 61. Bressler NM, Munoz B, Maguire MG, Vitale S, Schein OD, Taylor HR, West S. Five-year incidence and disappearance of drusen and retinal pigment epithelial abnormalities. *Arch Ophthalmol* 1995;113:301-308.
- 62. Friberg TR, Braunstein RA, Bressler NM, Munson, RS. Sudden visual loss associated with sexual activity. *Arch Ophthalmol* 1995;113:378-342.
- 63. Bressler NM, Bressler SB. Preventative ophthalmology: Age-related macular degeneration. *Ophthalmology* 1995;102:1206-1211.
- 64. Zimmer-Galler IE, Bressler NM, Bressler SB. Treatment of choroidal neovascularization: updated information from recent Macular Photocoagulation Study Group reports. *Int Ophthalmol Clin* 1995;35:37-57.
- 65. Dyer DS, Brant AM, Schachat AP, Bressler SB, Bressler NM. Angiographic features and outcome of questionable recurrent choroidal neovascularization. *Am J Ophthalmol* 1995;120:497-505.
- 66. Bressler NM. Submacular surgery: Are randomized trials necessary? *Arch Ophthalmol* 1995;113:1557-1560.
- 67. Macular Photocoagulation Study Group (prepared by Wilkinson CP, Hawkins, BS, Javornik NB, Newhouse MM, Keller JA, Bressler NM, et al). Five-year follow-up of fellow eyes of individuals with ocular histoplasmosis and unilateral extrafoveal or juxtafoveal choroidal neovascularization. *Arch Ophthalmol* 1996;114:677-688.
- 68. Macular Photocoagulation Study Group (prepared by Bressler NM, Marsh MJ, Maguire MG, Alexander J, Phillips DA, et al). Occult choroidal neovascularization: Influence on visual outcome in patients with age-related macular degeneration. *Arch Ophthalmol* 1996;114:400-412.
- 69. Bressler NM, Bressler SB. Indocyanine green angiography: can it help preserve the vision of our patients? *Arch Ophthalmol* 1996;114:747-749.
- 70. Jabs DA, Dunn JP, Enger C, Forman M, Bressler NM, Charache P. Cytomegalovirus retinitis and viral resistance: Prevalence of resistance at diagnosis. *Arch Ophthalmol* 1996:114:809-814.

- 71. Bressler NM, O'Brien TP. Meeting report of the Hawaii '96 meeting. *Arch Ophthalmol* 1996;114:894.
- 72. Avery RL, Fekrat S, Hawkins BS, Bressler NM. Natural history of subfoveal subretinal hemorrhage in age-related macular degeneration. *Retina* 1996;16:183-189.
- 73. Kiri A, Dyer DS, Bressler NM, Bressler SB, Schachat AP. Detection of diabetic macular edema: Nidek 3Dx stereophotography compared with fundus biomicroscopy. *Am J Ophthalmol* 1996;122:654-662.
- 74. Bressler NM, Maguire MG, Murphy, PL, Alexander J, Margherio R, Schachat AP, Fine SL, Stevens TS, Bressler SB. Macular scatter ("grid") laser treatment of poorly demarcated subfoveal choroidal neovascularization in age-related macular degeneration: Results of a randomized pilot trial. *Arch Ophthalmol* 1996;114:1456-1464.
- 75. Levin L, Bressler NM. The case report: when small is beautiful. *Arch Ophthalmol* 1996;114:1413.
- 76. Enger C, Jabs DA, Dunn JP, Forman MS, Bressler NM, Margolick JB, Charache P, and the CRVR Research Group. Viral resistance and cytomegalovirus retinitis: design and methods of a prospective study. *Ophthalmic Epidemiol* 1997;4:41-48.
- 77. Stevens TS, Bressler NM, Maguire MG, Bressler SB, Fine SL, Alexander J, Phillips DA, Margherio RR, Murphy PL, Schachat AP. Occult choroidal neovascularization in age-related macular degeneration: A natural history of morphologic changes. *Arch Ophthalmol* 1997;115:345-350.
- 78. Macular Photocoagulation Study Group (prepared by Maguire MG, Bressler SB, Bressler NM, Marsh MJ, Alexander J, Phillips DA, et al). Risk factors for choroidal neovascularization in the second eye of patients with juxtafoveal or subfoveal choroidal neovascularization secondary to age-related macular degeneration. *Arch Ophthalmol* 1997;115:741-747.
- 79. Pharmacological Therapy for Macular Degeneration Study Group (prepared by Guyer DR, Adamis AP, Yannuzzi LA, Gragoudas ES, Coscas GJ, Brancato R, Bird AC, Soubrane G, Miller J, Bressler NM, Slakter JS, DeRosa J). Interferon Alfa-2a is ineffective for patients with choroidal neovascularization secondary to age-related macular degeneration: Results of a prospective randomized placebo-controlled clinical trial. *Arch Ophthalmol* 1997;115:865-782.
- 80. Bressler NM. Submacular surgery: New information; more questions. *Arch Ophthalmol* 1997;115:1071-1072.
- 81. Sunness JS, Rubin GS, Applegate CA, Bressler NM, Marsh MJ, Hawk ins BS, Haselwood D. Visual function abnormalities and prognosis in eyes with age-related

- geographic atrophy of the macula and good visual acuity, *Ophthalmology* 1997;104:1677-1691.
- 82. Sunness JS, Rubin GS, Appelgate CA, Haselwood D, Marsh MJ, Bressler NM. Visual function and reading rate in eyes with age-related geographic atrophy of the macula and good visual acuity. *Arch Ophthalmol* 1997;104:1677-1691.
- 83. Loewenstein A, Sunness JS, Bressler NM, Marsh MJ, de Juan E Jr. Scanning laser ophthalmoscope fundus perimetry after surgery for choroidal neovascularization, *Am J Ophthalmol* 1998;125:657-65.
- 84. deJuan E Jr, Loewenstein A, Bressler NM, Alexander J. Translocation of the retina for management of subfoveal choroidal neovascularization II: A preliminary report in humans. *Am J Ophthalmol* 1998;125:635-646.
- 85. Schmidt-Erfurth U, Miller JW, Sickenberg M, Bunse A, Laqua H, Gragoudas E, Zografos L, Birngruber R, van den Bergh H, Strong A, Manjuris U, Fsadni M, Lane AM, Piguet B, Bressler NM. Photodynamic therapy of subfoveal choroidal neovascularization: Clinical and angiographic examples. *Graefe's Arch Clin Exp Ophthalmol* 1998;236:365-374.
- 86. Bressler NM. Evaluating new imaging techniques in retina. *Arch Ophthalmol* 1998:116: 521-522.
- 87. Jabs DA, Enger C, Dunn JP, Forman M, Bressler NM for the CMV Retinitis and Viral Resistance Study Group. Cytomegalovirus retinitis and viral resistance: Ganciclovir resistance. *J Infect Dis* 1998;177:770-773.
- 88. Rosberger DF, Schachat AP, Bressler SB, Bressler NM. Availability of color fundus photographs from previous visit affects practice patterns for patients with diabetes mellitus. *Arch Ophthalmol* 1998;116:1607-1610.
- 89. Bressler NM. Reviewers, authors, editors: balance of power. *Arch Ophthalmol* 1999;117:524-526.
- 90. Cheeseman EW Jr, Bressler NM, Hunter DG. Familial exudative vitreoretinopathy associated with monocular axial myopia. *Retina* 1999;19:257-259.
- 91. Raja SC, Jabs DA, Dunn JP, Fekrat S, Machan CH, Marsh MJ, Bressler NM. Pars planitis: clinical features and class II HLA associations. *Ophthalmology* 1999;106:594-599.
- 92. Sunness JS, Bressler NM, Tian Y, Alexander J, Applegate C. Measuring geographic atrophy in advanced age-related macular degeneration. *Invest Ophthalmol Vis Sci* 1999;40:1761-1769.

- 93. Sunness JS, Gonzalez-Baron J, Bressler NM, Hawkins BS, Applegate CA. The development of choroidal neovascularization in eyes with the geographic atrophy form of age-related macular degeneration. *Ophthalmology* 1999:106:910-919.
- 94. Weisz JM, Bressler NM, Bressler SB, Schachat AP. Ketorolac treatment of pseudophakic cystoid macular edema identified more than 24 months after cataract extraction. *Ophthalmology* 1999;106:1656-1659.
- 95. Bressler NM. In Reply to Letter to the Editor by Freeman, Bartsch, Mueller, and Banker. *Arch Ophthalmol* 1999;117:847.
- 96. Friedman DS, Katz J, Bressler NM, Tielsch JM. Racial differences in the prevalence of age-related macular degeneration: the Baltimore Eye Survey. *Ophthalmology* 1999;106:1049-1055.
- 97. Sunness JS, Gonzalez-Baron J, Applegate CA, Bressler NM, Tian YS, Hawkins BS, Barron Y, Bergman A. Enlargement of atrophy and visual acuity loss in the geographic atrophy form of age-related macular degeneration. *Ophthalmology* 1999;106:1768-1779.
- 98. Miller JW, Schmidt-Erfurth U, Sickenberg M, Pournas CJ, Laqua H, Barbazetto I, Zografos L, Piguet B, Donati G, Lane AM, Birngruber R, van den Berg H, Strong HA, Manjuris U, Gray T, Fsadni M, Bressler NM, Gragoudas E. Photodynamic therapy for choroidal neovascularization due to age-related macular degeneration with verteporfin: results of a single treatment in a phase I and II study. *Arch Ophthalmol* 1999;117:1161-1173.
- 99. Treatment of Age-Related Macular Degeneration with Photodynamic Therapy (TAP) Study Group (corresponding author: Bressler NM). Verteporfin (VisudyneTM) therapy of subfoveal choroidal neovascularization in age-related macular degeneration. One year results of two randomized clinical trials TAP report no. 1. *Arch Ophthalmol* 1999;117:1329-1345.
- 100. The Age-Related Eye Disease Study Research Group. The Age-Related Eye Disease Study (AREDS): Natural history study and clinical trial design implications. AREDS report no. 1. *Control Clin Trials* 1999;20:573-600.
- 101. Schmidt-Erfurth U, Miller JW, Sickenberg M, Laqua H, Barbazetto I, Gragoudas E, Zografos L, Piguet B, Pournas CJ, Donati G, Lane AM, Birngruber R, van den Berg H, Strong HA, Manjuris U, Gray T, Fsadni M, Fsadni M, Bressler NM. Photodynamic therapy of choroidal neovascularization due to age-related macular degeneration with verteporfin: Results of retreatments in a phase I and II study. *Arch Ophthalmol* 1999;117:1177-1187.
- 102. Bressler NM, Bressler SB. Photodynamic therapy with verteporfin (VisudyneTM): Impact on ophthalmology and visual sciences. *Invest Ophthalmol Vis Sci* 2000;41:624-628.

- 103. The Age-Related Eye Disease Study Research Group. The Age-Related Eye Disease Study (AREDS): A clinical trial of Zinc and Antioxidants. AREDS Report No. 2. Journal of Nutrition 2000;130:1516S-1519S.
- 104. Sickenberg M, Schmidt-Erfurth U, Miller JW, Pournas CJ, Zografos L, Piguet B, Donati G, Laqua H, Barbazetto I, Gragoudas E, Lane AM, Birngruber R, van den Berg H, Strong HA, Manjuris U, Gray T, Fsadni M, Fsadni M, Bressler NM. A preliminary study of photodynamic therapy using verteporfin for choroidal neovascularization in pathologic myopia, ocular histoplasmosis syndrome, angioid streaks and idiopathic causes. *Arch Ophthalmol* 2000;118:327-336.
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FULL TEXTBOOKS

Bressler NM, Brown GC, Flynn HW, Marmor MF, Anderson LS, Grand MG. American Academy of Ophthalmology's Basic Clinical Skills Course Section 12: Retina and Vitreous, 1996-1997, 1996.

BOOK CHAPTERS

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FEDERALLY-SUPPORTED (National Institutes of Health) RESEARCH GRANTS

CURRENTLY ACTIVE NIH SUPPORT:

1. Submacular Surgery Trials: Study Chairman's Office Grant NIH Grant - 1 U10 EY11547-01 Principal Investigator (*and Study Chairman*) – Up to 20% effort and support Project Period: 9/30/96 - 4/30/06

Purpose: Multicenter randomized clinical trials designed to determine if submacular surgery can reduce the risk of visual loss in patients with choroidal neovascularization due to age-related macular degeneration (the leading cause of severe visual loss in people over 65 in the United States and Western World), the ocular histoplasmosis syndrome or idiopathic causes.

2. Diabetic Retinopathy Clinical Research Network: Network Chair's Office. NIH Grant

Network Chair Elect (2005); Network Chair 2006 – 20% effort Project Period: 01/01/05 – 12/31/10

Purpose: To serve as Chair Elect and then as Chair of a network of clinical studies on diabetic retinopathy within a network of clinical centers, serving as Principal Investigator elect and then Principal Investigator of the Network Chair's Office.

3. Age-Related Eye Disease Study

NIH Grant - N01-EY-0-2111

Co-investigator - 2% effort (0% financial support)

Project Period: 07/01/90 - 12/31/05

Purpose: A study of the development and progression of cataracts and macular degeneration in people ages 60 to 75 and influence of nutritional supplements on these conditions.

COMPLETED NIH SUPPORT:

1. Age-Related Geographic Atrophy

NIH Grant -2 R01 EY0D08522-06A1

Co-Principal Investigator - 5% effort and support

Project Period: 9/30/98-9/29/00

Purpose: To determine natural history of patients with geographic atrophy from agerelated macular degeneration to determine risk factors for visual loss and potential patient groups for interventional trials.

2. Application of Non Invasive Retinal Thickness

NIH Grant - R01 EY06976-08A1

Co-Principal Investigator - 5% effort and support

Project Period: 7/1/94-7/1/99

Purpose: Study the relationship between retinal thickness, measured by a novel optical technique, and the natural history and effect of laser treatment on diabetic macular edema.

3. Effect of Cataract & Age-Related Maculopathy on Vision

NIH Grant - R01 EY06380-09

Co-Investigator - 4% effort and support

Project Period: 1/1/95-3/31/99

Purpose: Develop a set of tools that will allow one to determine the potential benefits of cataract surgery in patients with age-related macular degeneration.

4. CMV Retinitis and Viral Drug Resistance

NIH Grant - 1R01 EY05952

Co-Investigator - 9% effort and support

Project Period: 7/1/93-6/30/98

Purpose: Epidemiologic study to determine the incidence and prevalence of resistant cytomegalovirus (CMV) in patients treated for CMV retinitis, as well as risk factors for its development.

5. Geographic Atrophy Study

NIH Grant - EY08552-01

Co-Investigator - 4% effort and support Project Period: 03/01/92-02/28/97

Purpose: 5-Year natural history study of progressive loss of central vision due to

geographic atrophy.

6. Submacular Surgery Trials Planning Grant

NIH Grant - R21 EY10823-01

Principal Investigator (*Study Chairman*) - 10% effort (0% financial support)

Project Period: 1/1/95 - 3/31/96

Purpose: To obtain support for activities required to plan and organize a multicenter study evaluating the role of submacular surgery in age-related macular degeneration and the ocular histoplasmosis syndrome.

7. Macular Photocoagulation Study Reading Center

NIH Grant - EY05958-09

Principal Investigator - 20% effort and support

Project Period: 9/30/85 - 3/31/95

Purpose: Evaluate fundus photographs and angiograms of all participants in the

Macular Photocoagulation Study; collaborate with Coordinating Center.

8. Macular Photocoagulation Study:

NIH Grant EY02556-12

Principal Investigator - 5% effort and support

Project Period: 1/1/79 - 12/31/93

Purpose: Direct the clinical center at Wilmer randomizing patients to laser treatment

or no treatment in the Macular Photocoagulation Study.

9. Follow-up Study of Eye Disease in a Cohort of Chesapeake Bay Watermen

NIH Grant EY08776-01

Co-investigator - 10% effort and support

Project Period: 07/01/90 - 12/30/92

Purpose: Longitudinal evaluation of cataract and macular degeneration in a

population-based study.

10. Submacular Surgery Trials (SST) Pathology Center

NIH Grant -1 U10 EY 12662-01

Consultant – 2% effort Project Period: 8/99 - 7/05

Purpose: To evaluate the clinicopathologic correlations of choroidal

neovascularization structure and biochemistry from patients in comparison to their pre-surgery vision data, color fundus photographs, fluorescein angiograms, and visual outcomes. Additionally, post-mortem examination of eyes from patients enrolled in t the SST will enable correlation of tissue changes in both operated and unoperated eyes with clinical data.

INDUSTRY/FOUNDATION SUPPORTED RESEARCH GRANTS

CURRENTLY ACTIVE INDUSTRY/FOUNDATION SUPPORT:

1. Natural History of Subclinical Diabetic Macular Edema

Sponsor: ---

Principal Investigator – --- % effort and support

Project Period: 8/1/04 – 07/30/07

Purpose: To evaluate the natural history of diabetic macular edema detected on optical coherence tomography but not clinical examination compared with no edema on either optical coherence tomography or clinical examination among individuals with diabetic retinopathy.

2. ---

Sponsor: ---

Principal Investigator – Up to --% effort and support

Project period: 4/1/04 - 6/30/06

Purpose: To assist in the planning, design, and implementation of clinical trials, with specific reference to retinal diseases.

3. ---

Sponsors: ---

Principal Investigator – Up to --% effort and support

Project period: 07/01/03 - 6/30/06

Purpose: To provide consulting on behalf of the Johns Hopkins University to various industries regarding the planning, design, and implementation of clinical trials, with specific reference to retinal diseases.

COMPLETED INDUSTRY/FOUNDATION SUPPORT:

1. Phase II Study of the Effect of Visudyne Therapy with Reduced Light Doses/Fluence Rates on the Fluorescein Outcomes in Subfoveal Choroidal Neovascularization Secondary to Age-Related Macular Degeneration (RF)

Co-investigator, --- - - % effort and support

Project Period: 3/1/00 - 2/28/01

Purpose: To serve as Co-investigator, --- for the ---- study which is evaluating, primarily, if fluorescein leakage from the classic portion of the CNV lesion can be reduced, and secondarily, if fluorescein leakage from the occult portion of the lesion and visual acuity can be improved, after Visudyne therapy using reduced light doses achieved by reduced light fluence rates compared with Visudyne therapy using the standard light dose and fluence rate.

2. ---

Co-investigator, --- - -% effort and support

Project Period: 11/1/00 - 2/28/01

Purpose: To serve as Co-investigator, --- for the VIO study which is a randomized, placebo-controlled, double-masked, multicenter, phase III, study of the effect of Visudyne therapy in occult with no classic subfoveal choroidal neovascularization secondary to age-related macular degeneration.

3. ---

Chairman, Study Advisory Group

Co-Investigator, --- -- % effort and support

Project Period: 1/1/98 - 12/31/00

Purpose: To serve in a capacity as Study Chairman to the Study Advisory Group and 28 participating clinical centers whose purpose is to scientifically direct a randomized, controlled, multicenter clinical trial to determine the role of photodynamic therapy with lipsomal benzoporphyrin derivative monoacid (verteporfin) for treating early choroidal neovascularization due to macular degeneration or pathologic myopia. Also, to assist in activities of the --- for this trial and direct protocol monitoring of vision examiners.

4. ---

Principal Investigator - --% effort and support

Project Period: 10/98 - 9/00

Purpose: To serve as Principal Investigator of a clinical center at --- to assess the safety of AG3340 in patients with subfoveal CNV associated with AMD, to determine the dose and regimen of AG3340 to be used in a phase III trial, to assess the effect of AG3340 on visual function in patients with subfoveal CNV associated with AMD, and to study the effect of AG3340 on morphologic changes of subfoveal choroidal neovascular lesions over time.

5. <u>Treatment of Age-Related Macular Degeneration with Photodynamic Therapy</u> (Phase 3 Investigation) - ---

Chairman, Study Advisory Group

Co-Investigator, --- --- % effort and support

Project Period: 9/1/96 - 8/31/00

Purpose: To serve in a capacity as Study Chairman to the Study Advisory Group and 22 participating clinical centers whose purpose is to scientifically direct a randomized, controlled, multicenter clinical trial to determine the role of photodynamic therapy with lipsomal benzoporphyrin derivative monoacid (verteporfin) for treating choroidal neovascularization due to age-related macular degeneration. Also, to assist in activities of --- for this trial and direct protocol monitoring of vision examiners.

6. Photodynamic Therapy Trial for Neovascular AMD: Phase I/II - ---

Chairman, Scientific Advisory Group Executive Director of --- -- % support

Project Period: 10/1/94 - 12/31/96

Purpose: An open, multicenter, non-controlled phase I/II study of the treatment of choroidal neovascularization using photodynamic therapy with lipsomal

benzoporphyrin derivative monoacid (verteporfin)

7. Laser to Drusen to Prevent CNV Trial - ---

Principal Investigator - Neil M. Bressler, M.D. - --- % support

Project Period: 1/1/94-12/31/96

Purpose: Study to determine if laser treatment can prevent the development of choroidal neovascularization in high risk eyes.

8. Research to Prevent Blindness ---

Recipient - Neil M. Bressler, M.D.

Project Period: 7/1/95-6/30/96

Purpose: To assist in clinical studies on age-related macular degeneration.

9. Roferon-A in Age-related Macular Degeneration Study - ---

Principal Investigator - Neil M. Bressler, M.D. - --% support

Project Period: 7/1/93-12/31/95

Purpose: To determine whether Roferon-A can reduce visual loss in patients with subfoveal choroidal neovascularization due to age-related macular degeneration.

10. Laser to Drusen to Prevent CNV Trial - ---

Principal Investigator - Neil M. Bressler, M.D. - --- 5%

Project Period: 1/1/94-12/31/94

Purpose: Pilot study to determine if patients can be identified, recruited, and treated with no deleterious effects. These results will be used to determine if a larger multicenter trial is feasible to determine if laser treatment can prevent the development of CNV in high risk eyes.

11. ---

Advisor

Co-Investigator, --- - 6% effort and support

Project Period: 07/01/99 to 3/31/02

Purpose: To serve in a capacity as Advisor to 4 participating clinical centers in Japan whose purpose is to confirm the efficacy and safety (ocular and systemic) of verteporfin in Japanese patients with subfoveal CNV due to AMD presenting with some classic CNV lesions. Also, to assist in activities of the --- for this trial and direct protocol monitoring of vision examiners.

12. Visudyne Early Retreatment (VER) ----

Chairman, Study Advisory Group

Co-Investigator, --- --- effort and support

Project Period: 11/01/00 - 10/31/04

Purpose: To serve in a capacity as Study Chairman to the Study Advisory Group and clinical centers whose purpose is to scientifically direct a multicenter, randomized, parallel group, double-masked, controlled phase IIIb, 2-year study comparing the efficacy and safety of Visudyne Therapy with Early Retreatment to Standard Treatment in predominantly classic subfoveal choroidal neovascularization secondary to age-related macular degeneration. Also, to assist as Co-investigator in activities of the -- for this trial and direct protocol monitoring of vision examiners.

13. Visudyne Therapy in Minimally Classic Subfoveal CNV (VIM) - ---

Chairman, Study Advisory Group

Co-Investigator, --- effort and support

Project Period: 11/01/00 - 10/31/04

Purpose: To serve in a capacity as Study Chairman to the Study Advisory Group and clinical centers whose purpose is to scientifically direct a randomized, placebocontrolled, double-masked, multicenter, phase II/III, study of the effect of verteporfin therapy in minimally classic subfoveal choroidal neovascularization secondary to age-related macular degeneration. Also, to assist as Co-investigator in activities of the --- for this trial and direct protocol monitoring of vision examiners.

EDITORIAL ROLES

Editorial Boards:

Archives of Ophthalmology (Editor: Controversies Section)

Retina

Advanced Studies in Ophthalmology (Founding Editor-in-Chief)

Completed Editorial Boards

1991-1994 Section Editor (Reviews in Medicine), Survey of Ophthalmology 1995-2000 The Wilmer Retina Update, Editor-in-Chief (*and Founding Editor*)

Ad Hoc Reviewer in Last Few Years:

American Journal of Ophthalmology

British Journal of Ophthalmology

Eye

JAMA

Investigative Ophthalmology and Visual Science

New England Journal of Medicine

Ophthalmology

NATIONAL ADVISORY ROLES

Scientific Advisor: NEI Research for Macular Degeneration: February 1990 - December 1990.

Consultant - American Academy of Ophthalmology Preferred Practice Pattern for Macular Degeneration – 1990 - 1994

Ad Hoc Reviewer - National Eye Institute - Study Sections – 1993 to present

Editor - Basic and Clinical Science Course - Retina Section - American Academy of Ophthalmology - 1994-1998

Scientific Advisory Council: The Macula Foundation, Inc. - 2002 – present

Scientific Advisor - American Federation of Aging Research - 1992-1997

National Eye Institute (NEI) Special Emphasis Panel Review Committee – member: 1997,1998, 2001, 2003

Ophthalmic Devices Panel of the Medical Devices Advisory Committee for the Center for Devices and Radiologic Health, Food and Drug Administration: 2000 - present

U.S. Pharmacopeia Expert Committee - Member, 2000 - present

Carotene in Age-Related Eye Disease Study (CAREDS) Scientific Advisory Board for National Eye Institute – 2002 - present

SCORE Advisory Group Member – National Eye Institute: 2003 - present

Member, Data and Safety Monitoring Committee, National Eye Institute

Intramural Program of National Institutes of Health – 2002

Chair, Data and Safety Monitoring Committee, National Eye Institute Intramural Program of National Institutes of Health -2003 - present

PROFESSIONAL SOCIETIES AND SERVICE TO PROFESSIONAL SOCIETIES

1981-2005 Association for Research in Vision and Ophthalmology

1995-1998 Program Committee (Chairman of Program Committee in 1998)

1998-2002 Exhibits Committee (Chairman 2002)

1987-2005 American Medical Association

1987-2005 American Academy of Ophthalmology

1994-1997 Editor, Basic and Clinical Science Course: Retina Section

1990-2004 Consultant, Preferred Practice Patterns

1990-2005 Macula Society

1996-2002 Member, Executive Committee

1996-2002 Chairman, Program Committee

1994-1997 Member, Research Committee

1993-2005 Retina Society

1997-2004 Society for Clinical Trials

1998-2002 Member, Development Committee

1998-2004 Club Jules Gonin

1998-2005 American Society of Retina Specialists 2005 Chair, *Ad hoc* Leadership Committee

2003-2005 American Academy of Ophthalmology Member, *Committee on Aging*

INVITED GUEST LECTURESHIPS AND VISITING PROFESSORSHIPS

1988

Wilmer Retinal Vascular Center Course on Management of Choroidal Neovascularization - Baltimore, MD Nantucket Retina Meeting; Nantucket, MA Visiting Professor - Interfaith Medical Center Retinal Lecture Series - Brooklyn, NY

1989

Nantucket Retina Meeting; Nantucket, MA American Society of Contemporary Ophthalmology - Hollywood, FL

1990

American Society of Contemporary Ophthalmology - Phoenix, AZ
Nantucket Retina Meeting; Nantucket, MA
Program Committee - Symposium on age-related macular degeneration - Williamstown, MA
Research to Prevent Blindness Science Writers Seminar - Universal City, CA
American College of Surgeons - Retina Symposium - San Francisco, CA

1991

Visiting Professor - United States Air Force Medical Center - Department of Ophthalmology - San Antonio, TX

Masters of the Macula, Manhattan Eye and Ear Infirmary; New York, NY

Nantucket Retina Meeting; Nantucket, MA

Visiting Professor, Greater New York Ophthalmological Clinical Lecture Series (Manhattan Eye, Ear, and Throat Hospital) - New York, NY

Visiting Professor, Contemporary Issues in Age-Related Macular Degeneration: Pearls for the Practicing Ophthalmologist. Scheie Eye Institute, University of Pennsylvania School of Medicine; Philadelphia, PA

1992

19th Annual Hopkins Symposium in Geriatric Medicine

Visiting Professor, Manhattan Eye, Ear and Throat Hospital - New York, NY

Visiting Professor, Midwinter Laser Course - Retina Consultants - St Louis, MO

Visiting Professor, University of Wisconsin - Current Concepts Course - Madison, WI

The Retina Institute of Florida - Vitreoretinal Course - West Palm Beach, FL

Visiting Professor, Cornell - Biomedical Research Lascon Center - New York, NY

Visiting Professor - Venetia Ophthalmological Society - 8 Convegno della Society

Oftalmologica Triveneta - Padua, ITALY

Nantucket Retina Meeting, Nantucket, MA

Atlantic Coast Fluorescein Conference; Baltimore, MD

Scientific Committee - Ocular Neovascularization and Circulation - Paris, FRANCE

Visiting Professor, George Washington University - Grand Rounds - Washington, DC

Visiting Professor, Long Island Jewish Medical Center - Hyde Park, NY

1993

ICG Symposium at Cornell University, New York, NY

Visiting Professor, Southern California Retina Symposium - Laguna Beach, CA

Pre-Academy Retina Symposium; Vitreoretinal Interfaces; Chicago, IL

Visiting Professor, Cullen Eye Institute - Baylor - Macular Surgery Course, Houston, TX

Visiting Professor, Universite Laval, CANADA

Visiting Professor, Scheie Eye Institute - Macular Degeneration Current Status,

Philadelphia, PA

Visiting Professor, New Jersey Medical Center - Grand Rounds

Visiting Professor, Massachusetts Eye and Ear Infirmary

1994

Visiting Professor, Frontiers in Vitreoretinal Surgery; Jerusalem, ISRAEL

Visiting Professor, Fundacion Oftalmologica Argentina; Buenos Aires, ARGENTINA

1995

Visiting Professor, New York Academy of Medicine - New York, NY

Visiting Professor, University of Wisconsin-Madison Medical School

Visiting Professor, Retina Symposium - San Francisco, CA

Visiting Professor, Kevin Hill Course (Update on Retinal Disease)-Waterville, ME

Visiting Professor, International Symposium of the German Ophthalmological Society,

Baden-Baden, GERMANY

Update on Diabetic Retinopathy, Louisville, KY

Visiting Professor, Royal Australian College of Ophthalmology, Melbourne,

AUSTRALIA

Visiting Professor, Houston Ophthalmological Society - Houston, TX

1996

Visiting Professor, Advanced Vitreoretinal Symposium - Maui, HA

Visiting Professor, University of Iowa - Iowa City, IA

Visiting Professor, Cleveland Clinic, Cleveland, OH

Scientific Committee, European Macula Group, Genoa, ITALY

Visiting Professor, Yale University

Visiting Professor, Brooke Army Medical Center, San Antonio, TX

Visiting Professor, North Carolina Society of Ophthalmology Tri-State Meeting,

Asheville, NC

Visiting Professor, Virginia Society of Ophthalmology, Norfolk, VA Invited Symposium Speaker, XII International Congress of Eye Research, Yokahama, JAPAN

Visiting Professor, University of Virginia, Charlottesville, VA

Named Lecturer: Alex Krill Memorial Lecture, Chicago Ophthalmological Society, Chicago, IL

Visiting Professor, Israeli "Maccabi" Symposium - Tiberias, ISRAEL

1997

Visiting Professor, Vienna Ophthalmological Society - Vienna, AUSTRIA

Visiting Professor, Vitreoretinal Update Course - Sarasota, FL

Invited Lecturer, Aspen Retinal Detachment Society - Aspen, CO

Visiting Professor, Clinical Day in Retina - Long Island, NY

Visiting Professor, Frankfurt Retina Meeting - Frankfurt, GERMANY

Visiting Professor, Entretiens Optalmologique de Universite de Montreal - Montreal, CANADA

Visiting Professor, University of California, San Diego - San Diego, CA

Invited Lecturer, Virginia Society of Ophthalmology - Tyson's Corner, VA

Visiting Professor, University of Michigan - Ann Arbor, MI

Visiting Professor, Wills Eye Hospital - Philadelphia, PA

Visiting Professor, San Diego Eye Bank - San Diego, CA

Visiting Professor, 2nd International Symposium on AMD - Glasgow, SCOTLAND

Visiting Professor, Mid-America Retina Meeting - Kansas City, KS

Visiting Professor, New Jersey Academy of Ophthalmology - Eatontown, NJ

Visiting Professor, SUNY Stony Brook Grand Rounds - Stony Brook, NY

1998

Guest Lecturer, Grand Rounds, UMDNJ, Newark, NJ

Visiting Professor, New Jersey Retina Meeting

Invited Lecturer, New Orleans Academy of Ophthalmology - New Orleans, LA

Invited Lecturer, Brazilian Congress of Retina and Vitreous, Curitiba, BRAZIL

Invited Lecturer, Ocular Surgery News Symposium, Laguna Nigel, CA

Invited Lecturer, New England Ophthalmological Society - Boston, MA

Visiting Professor, Tübingen Angiography Course - Tübingen, GERMANY

Invited Lecturer, British Columbia Society of Eye Physicians and Surgeons Clinical Day

on Retinal Diseases - Vancouver, British Columbia, CANADA

Invited Lecturer, North Carolina Optometric Society, Charlotte, NC

Invited Lecturer, III Symposium International de Créteil, FRANCE

1999

Invited Lecturer, Macular Diseases and Surgery, Palo Alto, CA

Invited Lecturer, Macula Vision Research Foundation Conference, Phoenix, AZ

Named Lecturer: Arthur Culler Memorial Lecture, 42nd Annual Postgraduate

Symposium in Ophthalmology, Macula 2000, Columbus, OH

Named Lecturer, Goldberg Lecture, Sinai Grand Rounds, Baltimore, MD

Visiting Professor, Phillips Eye Institute, Minneapolis, MN

Invited Lecturer, Mahidol University, Ramathibodi Teaching Hospital, Bangkok, THAILAND

Invited Lecturer and member of Honorary Committee, Fourth Symposium on Indocyanine Green Angiography, Baden-Baden, GERMANY

Invited Lecturer, Ophthalmology & Visual Sciences in 21st Century, Cleveland, OH *Invited Lecturer*, 75th Congress of the Spanish Society of Ophthalmology, Malaga, SPAIN

Visiting Professor, Tennessee Academy of Ophthalmology, Knoxville, TN Invited Lecturer, Connecticut Retina Association, Waterbury, CT

2000

Visiteur Professor, Les Journées Ophtalmologiques de l'Université Laval (JOUL), Quebec City, CANADA

Invited Lecturer, Sarasota Retina Meeeting, Sarasota, FL

Named Lecturer, Naquin Lecture, Greater Baltimore Medical Center Annual Ophthalmology Symposium, Baltimore, MD

Invited Lecturer, 40th Anniversary of Wills Eye Hospital Retina Service, Philadelphia, PA

Invited Lecturer, 33rd Annual Ophthalmology Spring Meeting, Galveston, TX

Invited Lecturer, 100 Anniversary Meeting, Nordic Ophthalmology Congress, Reykjavik, ICELAND

Invited Lecturer, Ophthalmologists of the Treasure Coast Meeting, Stuart, FL

Invited Lecturer, Southeast Regional 2000 Joint Scientific Symposium, Hilton Head, SC

Invited Lecturer, Argentinian Ophtha Congress, Buenos Aires, ARGENTINA

Invited Lecturer, Macular Degeneration Seminar: Implications of Laboratory and Clinical Research. Doheny Eye Institute/USC, Los Angeles, CA

Invited Lecturer, National Congress of Ophthalmology, Shanghai, CHINA

Invited Lecturer, National Society of Southern Dames, Baltimore, MD

Invited Lecturer, Societa Oftalmologica Italiana, Napoli, ITALY

Invited Lecturer, Grand Rounds, Cornell University, New York, NY

2001

Invited Lecturer, Hawaii 2001: A Retina Odyssey, Honolulu, HA

Invited Lecturer, Saudi Ophthalmological Society Meeting, Riyadh, SAUDI ARABIA

Invited Lecturer, Fundacion Oftalmologica Nacional, Bogota, COLUMBIA

Invited Lecturer, Third International Retina Course, Mexico City, MEXICO

Invited Lecturer, West Virginia Academy of Ophthalmology 52nd Annual Meeting - White Sulphur Springs, WV

Guest Lecturer, Annual Ophthalmology Congress, Maastricht, THE NETHERLANDS Named Professorship, Paul A. Chandler Lecture, Boston, MA

Guest Lecturer, Royal College of Ophthalmologists Annual Congress, Birmingham, UNITED KINGDOM

Invited Lecturer, 8th World Congress of Photodynamic Medicine, Vancouver, BC, CANADA

Invited Lecturer, OSSA Conference 2001, Port Elizabeth, SOUTH AFRICA *Invited Lecturer*, Clinical Applications of Ocular Blood Flow Meeting, Beverly Hills, CA

Invited Lecturer, Current Concepts in Ophthalmology, San Diego, CA

Invited Lecturer, Asian Ophthalmology Meetings, THAILAND, PHILIPPINES, KOREA

Invited Lecturer, New Trends in Diagnostic and Therapy of Macular Diseases, Florence, ITALY

Invited Lecturer, RANZCO Annual Meeting, AUSTRALIA

Invited Lecturer, XVIII Chilean Congress of Ophthalmology, Pucón, CHILI 2002

Invited Lecturer, University of North Carolina Department of Ophthalmology, Chapel Hill, NC

Invited Lecturer, New Jersey Retina Group, New Jersey

Invited Lecturer, Canadian Retina Group, Banff, CANADA

Named Lecturer, Fourth International Symposium of Ophthalmology, Shantou, CHINA

Invited Lecturer, Retina Symposium, Istanbul, TURKEY

Invited Lecturer, New York State Ophthalmology Society, Stowe, Vermont

Named Lecturer, Sternberg Lectureship, Emory University, Atlanta, Georgia

Invited Lecturer, University of North Carolina, Charlotte, North Carolina

Invited Lecturer, Nantucket Retina Meeting, Boston, MA

Invited Lecturer, Maryland Society of Eye Physicians and Surgeons, Columbia, MD

Invited Lecturer, Michigan Ophthalmological Society, Mackinaw Island

2003

Invited Lecturer, XXVII Congress of Brazilian Society of Retina and Vitreous, Goiana, BRAZIL

Invited Lecturer, 17 Annual Sarasota Vitreo-Retinal Update Course, Sarasota, FL

Invited Lecturer, North Shore-LIJ Grand Rounds, Great Neck, NY

Invited Lecturer, Rush Retina Update Course, Chicago IL

Invited Lecturer, Yale Spring Symposium and Alumni Day, New Haven, CT

Invited Lecturer, Michaelson Symposium on Ocular Neovascularization, Paris,

FRANCE

Invited Lecturer, Long Island Jewish Medical Center - Stony Brook, NY

Invited Lecturer, Bietti Foundation Symposium, Rome, ITALY

2004

Invited Lecturer, Virginia Society of Ophthalmology, Chantilly, VA

Invited Lecturer, Helen Keller Foundation Symposium, Birmingham, AL

th

Invited Lecturer, 27 Annual UC Davis Ophthalmology Symposium, Sacremento, CA

Invited Lecturer, Devers Eye Institute and Legacy Health System, Portland, OR

Invited Lecturer, Midwest Ocular Angiography Conference

Invited Lecturer, Fourth AMD Congress, Sardinia Italy

Invited Lecturer, Maryland Society of Eye Physicians & Surgeons, Baltimore, MD

Invited Lecturer, Annual Retina Meeting, Tokyo, **Japan**

CONTINUING MEDICAL EDUCATION COURSES SPONSORED BY JOHNS HOPKINS OR AMERICAN ACADEMY OF OPHTHALMOLOGY (Previous years available on request)

1992 Johns Hopkins Medical Institutions Sponsored Courses

- Age-Related Macular Degeneration Course Johns Hopkins Course Director
- Current Concepts in Ophthalmology Puerto Rico
- Current Concepts in Ophthalmology Vail, Colorado
- Laser Technology Course, Johns Hopkins Course Director
- Diabetic Retinopathy Course Wilmer Ophthalmological Institute

American Academy of Ophthalmology Sponsored Courses

- AAO Meeting Guidelines for Evaluation of Treatment of CNV in the Macular Photocoagulation Study Skills Transfer Didactic Course Director
- AAO Meeting Guidelines for Evaluation of Treatment of CNV in the Macular Photocoagulation Study Skills Transfer Hands-On Course Director

1993 Johns Hopkins Medical Institutions Sponsored Courses

- AMD Course and Fluorescein Workshop Course Director Wilmer Ophthalmological Inst.
- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, Colorado Wilmer Ophthalmological Institute
- 23rd Anniversary Mtg. Retinal Vascular Center Wilmer Ophthal Inst Course Director
- Fluorescein Angiography Workshop Course Director
- Diabetic Retinopathy Course Wilmer Ophthalmological Institute
- Current Concepts (Baltimore) Course Co-Director

American Academy of Ophthalmology Sponsored Courses

- AAO Meeting Guidelines for Evaluation of Treatment of CNV in the Macular Photocoagulation Study Skills Transfer Didactic Course Director
- AAO Meeting Guidelines for Evaluation of Treatment of CNV in the Macular Photocoagulation Study Skills Transfer Hands-On Course Director

1994 Johns Hopkins Medical Institutions Sponsored Courses

- 1994 UPDATE: Age-Macular Degeneration Course Wilmer Ophthalmological I Institute; Course Director
- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, Colorado Wilmer Ophthalmological Institute
- Diabetic Retinopathy and Venous Occlusive Disease Wilmer Ophthalmological Institute
- Medical Update for the Medical Practitioner Wilmer Ophthalmological Institute

American Academy of Ophthalmology Sponsored Courses

- AAO Meeting - Guidelines for Evaluation of Treatment of CNV in the Macular Photocoagulation Study - Skills Transfer Didactic - Course Director

- AAO Meeting - Guidelines for Evaluation of Treatment of CNV in the Macular Photocoagulation Study - Skills Transfer Hands-On - Course Director

1995 Johns Hopkins Medical Institutions Sponsored Courses

- 1995 UPDATE: Age-Macular Degeneration Course Course Director Wilmer Ophthalmological Institute; Baltimore, MD
- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, Colorado Wilmer Ophthalmological Institute
- 25th Anniversary Meeting of the Retinal Vascular Center Sundance, Utah
- Diabetic Retinopathy and Venous Occlusive Disease Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Baltimore, MD Wilmer Ophthalmological Institute

American Academy of Ophthalmology Sponsored Courses

- AAO Meeting Guidelines for Evaluation of Treatment of CNV in the Macular Photocoagulation Study Skills Transfer Didactic Course Director
- AAO Meeting Guidelines for Evaluation of Treatment of CNV in the Macular Photocoagulation Study Skills Transfer Hands-On Course Director
- AAO Meeting Subspecialty Day 1995 The Cutting Edge

1996 Johns Hopkins Medical Institutions Sponsored Courses

- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, Colorado Wilmer Ophthalmological Institute
- 1996 Update on Medical/Surgical Retina, Course Director Baltimore, MD Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Baltimore Wilmer Ophthalmological Institute
- Diabetic Retinopathy and Venous Occlusive Disease Wilmer Ophthalmological Institute

American Academy of Ophthalmology Sponsored Courses

- AAO Meeting Subspecialty Day 1996 Vitreoretinal Frontiers: 21st Century
- AAO Meeting Guidelines from the Macular Photocoagulation Study for Evaluating and Treating Choroidal Neovascularization Skills Transfer Didactic Course Director
- AAO Meeting Guidelines from the Macular Photocoagulation Study for Evaluating and Treating Choroidal Neovascularization Skills Transfer Hands-On Course Director

1997 Johns Hopkins Medical Institutions Sponsored Courses

- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, Colorado Wilmer Ophthalmological Institute
- 1997 Update on Medical/Surgical Retina, Course Director Baltimore, MD Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Baltimore Wilmer Ophthalmological Institute

- Diabetic Retinopathy and Venous Occlusive Disease - Wilmer Ophthalmological Institute

American Academy of Ophthalmology Sponsored Courses

- AAO Meeting Subspecialty Day 1997 Vitreoretinal Update 1997
- AAO Meeting Guidelines from the Macular Photocoagulation Study for Evaluating and Treating Choroidal Neovascularization Skills Transfer Didactic Course Director
- AAO Meeting Guidelines from the Macular Photocoagulation Study for Evaluating and Treating Choroidal Neovascularization Skills Transfer Hands-On Course Director
- AAO Meeting Macula Society Update: 1997 Course Director

1998 Johns Hopkins Medical Institutions Sponsored Courses

- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, Colorado Wilmer Ophthalmological Institute
- 1998 International Symposium on AMD Baltimore, MD Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Baltimore Wilmer Ophthalmological Institute
- Diabetic Retinopathy and Venous Occlusive Disease Wilmer Ophthalmological Institute
- Atlantic Coast Retina Club Meeting Wilmer Ophthalmological Institute

American Academy of Ophthalmology Sponsored Courses

- AAO Meeting Subspecialty Day 1998 Vitreoretinal Update 1998
- AAO Meeting Guidelines from the Macular Photocoagulation Study for Evaluating and Treating Choroidal Neovascularization Skills Transfer Didactic Course Director
- AAO Meeting Guidelines from the Macular Photocoagulation Study for Evaluating and Treating Choroidal Neovascularization Skills Transfer Hands-On Course Director
- AAO Meeting Macula Society Update: 1998 Course Director
- 1999 Johns Hopkins Medical Institutions Sponsored Courses
- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, Colorado Wilmer Ophthalmological Institute
- 1999 Update on Medical/Surgical Retina, Course Director Baltimore, MD Wilmer Ophthalmological Institute
- Diabetic Retinopathy and Venous Occlusive Disease Wilmer Ophthalmological Institute Current Concepts in Ophthalmology Baltimore Wilmer Ophthalmological Institute

American Academy of Ophthalmology Sponsored Courses

- AAO Meeting Subspecialty Day 1999 Vitreoretinal Update 1999
- AAO Meeting Guidelines from the Macular Photocoagulation Study for Evaluating and Treating Choroidal Neovascularization Skills Transfer Didactic Course Director
- AAO Meeting Guidelines from the Macular Photocoagulation Study for Evaluating and Treating Choroidal Neovascularization Skills Transfer Hands-On Course Director

- AAO Meeting Macula Society Update: 1999 Course Director 2000 Johns Hopkins Medical Institutions Sponsored Courses
- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, Colorado Wilmer Ophthalmological Institute
- Wilmer Residents Association 75th Anniversary Meeting, Baltimore, MD Wilmer Ophthalmological Institute
- 2000 Update on Medical/Surgical Retina, Course Director Baltimore, MD Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Baltimore Wilmer Ophthalmological Institute American Academy of Ophthalmology Sponsored Courses
- AAO Meeting Subspecialty Day 2000 Vitreoretinal Update 2000
- AAO Meeting Photodynamic Therapy: Current Treatment Guidelines for Choroidal Neovascularization Skills Transfer Didactic Course Director
- AAO Meeting -Photodynamic Therapy: Current Treatment Guidelines for Choroidal Neovascularization Skills Transfer Hands-On Course Director

2001 Johns Hopkins Medical Institutions Sponsored Courses

- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, Colorado Wilmer Ophthalmological Institute
- Wilmer Residents Association Meeting, Baltimore, MD Wilmer Ophthalmological Institute
- 2001 Update on Medical/Surgical Retina, Course Director Baltimore, MD Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Baltimore Wilmer Ophthalmological Institute

American Academy of Ophthalmology Sponsored Courses

- AAO Meeting Subspecialty Day 2001 Vitreoretinal Update 2001
- AAO Meeting Photodynamic Therapy: Current Treatment Guidelines for Choroidal Neovascularization Skills Transfer Didactic Course Director
- AAO Meeting -Photodynamic Therapy: Current Treatment Guidelines for Choroidal Neovascularization Skills Transfer Hands-On Course Director

2002 Johns Hopkins Medical Institutions Sponsored Courses

- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, Colorado Wilmer Ophthalmologica Institute
- Wilmer Residents Association Meeting, Baltimore, MD Wilmer Ophthalmological Institute
- 2002 Update on Medical/Surgical Retina, Course Director Baltimore, MD Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Baltimore , MD Wilmer Ophthalmological Institute

American Academy of Ophthalmology Sponsored Courses

- AAO Meeting Subspecialty Day 2002 Vitreoretinal Update 2002
- AAO Meeting Photodynamic Therapy: Current Treatment Guidelines for Choroidal Neovascularization Skills Transfer Didactic Course Director
- AAO Meeting -Photodynamic Therapy: Current Treatment Guidelines for Choroidal Neovascularization Skills Transfer Hands-On Course Director

2003 Johns Hopkins Medical Institutions Sponsored Courses

- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, Colorado Wilmer Ophthalmological Institute
- Wilmer Residents Association Meeting Baltimore, MD Wilmer Ophthalmological Institute
- Preferential Hyperacuity Perimeter Studies Meeting Fort Lauderdale, FL-Wilmer Ophthalmological Institute
- 2003 Update on Medical/Surgical Retina, Course Director Baltimore, MD Wilmer Ophthalmological
- The Johns Hopkins Center for Clinical Trials-Baltimore, MD-Wilmer Ophthalmological Institute

American Academy of Ophthalmology Sponsored Courses

- AAO Meeting Subspecialty Day 2003 Vitreoretinal Update 2003
- AAO Meeting Photodynamic Therapy: Current Treatment Guidelines for Choroidal Neovascularization Skills Transfer Didactic Course Director
- AAO Meeting -Photodynamic Therapy: Current Treatment Guidelines for Choroidal Neovascularization Skills Transfer Hands-On Course Director

2004 Johns Hopkins Medical Institutions Sponsored Courses

- Optical Coherence Tomography (OCT): State of Art Course Director, Baltimore, MD
 Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Puerto Rico Wilmer Ophthalmological Institute
- Current Concepts in Ophthalmology Vail, CO Wilmer Ophthalmological Institute
- Update: AMD 2004 Course Director, Wilmer Eye Institute, Baltimore, MD

EDUCATIONAL RESPONSIBILITIES

Medical Students:

Year 2:

Pathophysiology Lecture: Posterior segment of the eye (1 time per year) Clinical Skills Introduction to Ophthalmology Lecture (1 time per year)

Years 3 and 4:

Required Clerkship--3 lectures (5 times per year)

Required Clerkship--Student observer for patients (up to 5 times per year)

Elective Clerkship--1 lecture (up to 6 times per year)

Elective Clerkship--Student observer for patients (up to 6 times per year)

Elective Clerkship--Sporadically, a student will work for 2-3 months on a clinical

research project, culminating in a publication to be authored by the student (see for example, article by --, *Arch Ophthalmol*, December 1994).

Residents:

Direct 2nd year resident rotation in retina.

Supervise 2nd year resident 1 day per week in the management of retinal diseases in patients from the residents clinic as well as from my practice.

Teach approximately 6 lectures per year as part of the residents' didactic morning lecture series.

Sporadically, a resident will work for 2-3 months on a clinical research project, culminating in a publication to be authored by the resident.

Fellows:

Director, Retinal Fellowship Program at Wilmer Ophthalmological Institute (Evaluate applications, arrange interview of residents for positions, secure additional funding--most fellows for last 5 years have been awarded Heed Fellowships for work during their year in the Retinal Vascular Center; oversee day to day scheduling and education of fellows)

Supervise 2 to 3 fellows, 3 days per week, in the management of retinal diseases in patients from my practice.

Sporadically, a fellow will work for 2-3 months on a clinical research project, culminating in a publication to be authored by the fellow (see for example, article by ---, *Am J Ophthalmol*, 1995).

Other:

School of Public Health and Hygiene: Participate in lecture to epidemiology students once per year.

Sporadic participation on a Thesis Committee for Ph.D. candidates at School of Public Health and Hygiene when topics involve retina (most recent PhD for 2002: ---).

Sporadically, a student in the School of Public Health and Hygiene will work on a clinical research project, culminating in a publication to be authored by the student (see for example, article by ---, *Am J Ophthalmol*, 1996).

CLINICAL ACTIVITIES

National and international referral practice specializing in the management of medical retinal disease (e.g., diabetic retinopathy, age-related macular degeneration, retinal vein occlusions), with specific reference to treatments for these conditions as well as designing and directing clinical trials evaluating new managements of these diseases.

ADMINISTRATIVE RESPONSIBILITIES:

DEPARTMENT OF OPHTHALMOLOGY (Wilmer Eye Institute) ACTIVITIES Chief, Retina Division (currently includes 16 full time retina physicians)

UNIVERSITY SCHOOL OF MEDICINE ACTIVITIES

Associate Professor Promotions Committee (1994 - 1998) Committee on Conflict of Interest (2002 - present)

DEPARTMENTAL ACTIVITIES

Clinical Practice Advisory Committee (1989 - present)

Identification of clinical practice problems, such as incorrect billing by either the Chief Resident or the full-time faculty for professional fee visits or surgical billing; development of more efficient and informative pre-registration processes; development of better "time of service" payment mechanisms.

Chairman, Subcommittee on Electronic Patient Record for Wilmer Institute. (1995 - 1997)

Resident Education Committee:

Serve in an advisory role to the Chief Resident to identify educational needs of the residency program, including the core curriculum. (1993 -1997)

Chairman, Wilmer Imaging Committee (2001-2003)

DIVISIONAL ACTIVITIES

Director of Retinal Fellowship Program

Director of weekly Fluorescein Conferences (sponsored by Johns Hopkins University School of Medicine - Continuing Medical Education Office).